

## WHAT IS CLAIMED IS

1. An imaging optical device, in particular binoculars (1) or a telescope, comprising
  - 5     - a casing (2);
  - an optical system (2a) having at least two optical components, the distance of which relative to each other being adjustable for focus setting of the optical system (2a);
  - an adjusting device (5), which is coupled with at least one of the two
  - 10     optical components, for regulation of the distance between the two optical components;
  - a detection device (11) for detecting the position of the optical components relative to one another;
  - a processor (16) which is in signalling connection with the detection
  - 15     device (11) for conversion of position data obtained from the detection device (11) into a focal length of the optical system;
  - an output device (17) which is in signalling connection with the processor (16) for readable display of the converted focal length; and
  - an energy-supply device for the detection device (11), the processor
  - 20     (16) and the output device (17).
2. An optical device according to claim 1, wherein the energy supply device comprises at least one battery (18).
- 25 3. An optical device according to claim 1, wherein the adjusting device (5) comprises a movable adjusting body, the detection device (11) comprising a potentiometer pickoff which detects the current position of the adjusting body.

4. An optical device according to claim 3, wherein the movable adjusting body comprises an adjusting wheel, the detection device (11) comprising a potentiometer pickoff which detects the current position of the adjusting body.

5

5. An optical device according to claim 3, wherein the potentiometer pick-off of the detection device (11) comprises a wiper (10) which is rigidly connected to the at least one adjustable optical component, and a wiper contact (12) which is fixed to the casing (2).

10

6. An optical device according to claim 1, wherein the output device (17) is a liquid crystal display.

15

7. An optical device according to claim 1, comprising an operating button (19) for temporary activation of the detection device (11).

8. An optical device according to claim 1, comprising an operating button (19) for temporary activation of the output device (17).

20

9. An optical device according to claim 1, comprising an operating button (19) for temporary activation of the detection device (11) and the output device (17).

25

10. An optical device according to claim 1, wherein supply of the detection device (11) with energy takes place via a ribbon cable (13).